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ABSTRACT

This document describes the Education Through Organ Study Program (ETHOS) designed to counteract disaffected students' falling academic achievement, absenteeism and truancy, and negative attitudes toward education and the school. The program attempted to assure success in acquiring musical skill by providing portable desk reed organs, programmed music texts, and a highly structured syllabus. The program ran for 5 months, for one period daily. Three classes totalling 92 students participated. A modified Pan-American Musical Aptitude test was used to assess student musical abilities at inception of classes. In the comparative analysis of Metropolitan Reading Achievement test scores for the year before to the semester of the program, the scant data available for retested students suggested a widening of reading deficit among program participants. It also showed that those students with the lowest reading scores tended to drop out of the program. In summary, the program appeared to sustain highly positive motivation for those who remained in it, and resulted in a significant development of early musical knowledge and performance skills. However, the major goal of generalized transfer of improvement in learning to reading and major skill areas was not achieved. The project also failed to reduce absenteeism and truancy, or to improve significantly attitude toward education and the school as measured. As a result the program has been discontinued. (Author/AM)

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Final Report

E T H O S

EDUCATION THROUGH ORGAN STUDY

September 14, 1970-June 30, 1971

Prepared by

Seth F. Wohl

VT 017229

A New York State Urban Education - Quality Incentive Program to determine the effectiveness of a skills approach in high school music instruction upon academic performance, attitude and motivation.

BUREAU OF EDUCATIONAL RESEARCH

Samuel D. McClelland, Acting Director
George Forlano, Assistant Administrative Director

P. N.

July 1971

A C K N O W L E D G E M E N T S

The ETHOS project was the creation of Dr. Lionel Kaplan, Chairman of Music at George W. Wingate High School. His vision and persistence brought forth the program and carried it through its research year against almost insurmountable problems.

Dr. Robert Schain, Principal of George W. Wingate High School, Brooklyn, New York cooperated in permitting his school program to encompass the ETHOS experiment.

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Budgeting assistance and handling of the mass of administrative detail goes to the credit of Ann Braunstein, Director and Mary Hamilton McLaughlin, Assistant Director, High School Projects Office.

This report was prepared under the supervision of Dr. Samuel D. McClelland, Acting Director and Dr. George Forlano, Assistant Administrative Director, Bureau of Educational Research.

SFW

E D U C A T I O N T H R O U G H O R G A N S T U D Y

E T H O S P R O J E C T

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E T H O S

ABSTRACT OF THE PROJECT

Education Through Organ Study was conceived of as a great opportunity to counteract disaffected students' falling academic achievement, mushrooming absence--truancy rates, and discouraging attitude toward education and the school community. This was to be done through a presumed highly motivating input--the use of portable desk reed organs--a 3½ octave keyboard instrument, programed music texts, and a highly structured syllabus--all of which were to assure success in acquiring the musical skill in both cognitive knowledge and performance ability. The program operated on a shoestring budget of $2,403. with no funds for salaries or clerkical assistance.

The program was not implemented until the spring term 1971 and ran 5 months (85 days) 1 period daily for 3 classes totalling 92 students at entry and conducted by 2 teachers.

A modified Pan-American Musical Aptitude test was used to assess student musical abilities at inception of classes. It was given after classes were organized, and thus failed to qualify as a criterion for student selection.

An "in-house" achievement test was administered on a before-after program basis for all participants, and increment in skill analyzed for significance by means of a non-parametric correlated t-test. Results were highly significant as to learning gains in the basic musical skills for all classes at the 5% level of probability. This significance applies only to those remaining in the program to the end--about 50% of the enrollees.

A 50-item attitudinal instrument on education and the school (See Appendix D) modified from validated items was compiled from the M. E. Shaw & J. M. Wright anthology of attitudinal instruments--Scales for the Measurement of Attitude, McGraw-Hill (1967)---was administered all participants, also

on a before-and-after program basis and analyzed non-parametrically by correlated t-test. The resulting no significant difference for all classes suggests problems in obtaining significant difference measurement over a four month period for a non-major subject project.

Comparative absence rates from school were studied for the project semester and the winter term before. Two out of three classes showed higher absence rates during the project semester for program retainees. The differences again were not statistically significant for any class when analyzed non-parametrically for small sample sizes by correlated t-test.

In the comparative analysis of Metropolitan Reading Achievement test scores for the year before to the semester of the program, the scant data available for retested students, numbering 27 in total, suggested a widening of reading deficit among program participants. It also showed that students with the lowest reading scores tended to be the ones who dropped out of the program; those with the better scores (least deficit) were the retainees. Thus the most disaffected students who might be presumed to benefit most from the program, became the ones who removed themselves from its effects by dropping out.

Comparative mathematics standardized achievement scores for participants did not exist in the official school records.

Faculty attitude as assessed by interview and end-term questionnaire revealed very positive attitude toward the program and the use of the musical instrument; very favorably lauded student progress and student cooperation; and favored program continuation. There was however, recognition of decline in student attendance during the program, mechanical problems with the instruments, and admitted lack of teamwork among the participating faculty.

Examination of the curriculum showed disparity between ETHOS classes in curriculum coverage in the John Thompson's: Adult Preparatory Piano Book.

Apart from individual teaching style differences, misplacement of sole copy of the ETHOS syllabus document at start of the project led to week-by-week planning separately by each teacher, and was related to non-coordination among them. By the end of the semester, the Project Coordinator had regenerated the document.

The Project Coordinator was sufficiently overburdened by administrative detail in basic program administration, syllabus regeneration, testing and scoring, budgeting and ordering, and submission of interim reports to the State Department of Education, all without clerical assistance, that he hesitated to apply for recycling of funds for another year of ETHOS.

There was insufficient opportunity to publicize adequately the program in the school community or facilitate the programing of students into ETHOS classes as was needed.

The program did appear to sustain highly positive motivation for those who remained with it, and resulted in a significant development of early musical knowledge and performance skills. However, the major goal of generalized transfer of improvement of learning to reading and major skill areas was not achieved. The project also failed to reduce absenteeism and truancy, or to improve significantly attitude toward education and the school as measured. As a result, the program has been discontinued.

Specific recommendations to correct administrative, curricular and instructional problems, including better use of criteria for student selection, publicity and a school performance goal for participants, have been made as prerequisite to replicating the study, and that only on a one-full year basis.

Under the operating conditions described in the report, the 'model program' with wide potential applicability to similar situations for disaffected students has not come into being.

I PURPOSES AND DESIGN OF THE STUDY

A. Background to the study

Previous studies and statements made by the Educational Policies Commission (1962) have suggested that children in poverty areas: (1) can be reached by school offerings that result in good achievement, because they have a normal range of intelligence and ability; (2) have learning styles and motivation different from that of middle class culture; and, (3) need school programs that are reoriented for students with different or limited backgrounds (Olanoff and Kirschner, 1969).[1] The above mentioned report indicates that general music programs through junior-high school aim toward music appreciation and a pleasurable stimulation about music with less emphasis on musical skills and direct participation. In addition, music appreciation has suffered from overcrowding due to large combined classes, lack of materials and equipment, inadequate staffing, and a secondary place relative to traditional subjects geared toward academic achievement.[2]

The Project Director and founder of the ETHOS program has favored moving in a direction of more direct student participation in acquisition of specific musical skills as a means for maintaining motivation during school study, and leaving students with an enjoyable developed skill which can be practiced at home throughout their lives or developed further into musical careers. It was seen, moreover, as a means of motivating disaffected students to remaining in school, of reducing absenteeism and of leading to improved academic achievement in the major subject areas.

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[1] Olanoff, Martin and Louise Kirschner. Music Ability Utilization Program. Cooperative Research Project No. 2600, U. S. Dept. of Hlth, Educ. & Welf. Bureau of Educational Research, Bd. of Educ. of the City of N.Y. 1969. p.3

[2] Ibid. pp.5, 6.

Such movement has been made possible by increasing pressures for revamping curriculum in urban ghetto area high schools, and by availability of public funds for experimenting with innovative programs using equipment and materials with manageable class-sized groups.

In music education, a number of programs have introduced a music laboratory approach with new curricular materials whereby students learn to play an instrument and read music as a matter of direct participation (Gluck, 1970)[3]. The Project Director did preliminary investigation on availability of inexpensive keyboard instruments and located several portable reed organs in the $40. range. This rendered feasible the setting up of a pilot program with researchable components and measures on a minimum budget of approximately $2,400. Contact was made through the High School Projects Office, and with support of the Bureau of Music, a program proposal was submitted for funding under the New York State Urban Education Program-Quality Incentive Program, State Education Law 3602, subdivision 11, as amended, 1970 Legislative Session. The initial document as prepared by the Project Director was entitled: "A Proposal for the Establishment of Portable Desk Organ Lab."

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[3]Gluck, Harriet D. "The Andrew Jackson Piano Laboratory." High Points. Board of Education of the City of New York. Fall 1970 pp. 30, 31.

B. Statement of the Problem

Six primary and secondary objectives of the ETHOS program were listed in the original project proposal of August 1970 and dealt with pupil motivation, success in music achievement, raising of self-image, improvement in attitudes, improvement in pupil socialization, and the providing of a vehicle of instruction via the keyboard.

From these goals, the hypothesis of the project is that generalized improvement in school attendance and relative success in academic work accompanied by a more positive attitude toward education will transfer from a non-academic skill area where motivation, reinforcement and success are built in. Restated as a problem:

> CAN GENERALIZED IMPROVEMENT IN SCHOOL ATTENDANCE AND RELATIVE SUCCESS IN ACADEMIC WORK ACCOMPANIED BY A MORE POSITIVE ATTITUDE TOWARD EDUCATION TRANSFER TO OTHER AREAS FROM AN ACQUIRED LEVEL OF MUSICAL SKILL WHERE MOTIVATION, REINFORCEMENT AND SUCCESS ARE BUILT IN?

The analysis of the problem is represented in the evaluation design of October 1970, where the goals of the program (as required by the State Education Department) were restated in behaviorally observable components that could lend themselves to measurement and evaluation, avoiding long-range claims and difficult-to-observe affective changes.

Primary Objectives of the Program

1. To Provide an opportunity for success in musical skill through direct participation and feedback with students' portable desk organs, soprano recorders, and highly structured learning materials that teach the pupils how to use the instruments, at least 75% of the participants will score at least 75% on a musical achievement test locally constructed as criterion for the observable skills of the program.

2. To provide an opportunity for students to participate more fully in the total school life and improve in their academic achievement as a result of this program. Participants will demonstrate:

   a. Reduction by 20 to 40% in absenteeism, including reduction of truancy; and

b. Increment in achievement:

(1) in reading by 10% to 25% over the pre-program year; and

(2) in arithmetic by 10% to 25% over the pre-program year as measured by the city-wide standardized achievement testing program administered uniformly in grade 9 in all high schools every spring.

3. To provide an opportunity for culturally deprived students to improve their attitudes toward education and the school as a result of this program, at least 75% of the participants will demonstrate statistically significant improvement in positivity of attitude toward their education and the school as measured by an attitudinal scale, amended from validated items in the Marvin E. Shaw and Jack M. Wright compendium of attitudinal instruments (McGraw-Hill, 1967), and administered on a pre-program and post-pilot year basis.

Secondary Objectives of the Program

1. To implement the program proposal and description as to the stated instrumentation, musical skill training, and pupil population involvement by offering direct keyboard and wind experiences to students from economically deprived homes as a vehicle of instruction for their learning by doing.

2. To stimulate individualization of instruction that gives each pupil a sense of responsibility for his own learning through appropriate musical instrumentation and highly structured learning materials.

3. To encourage positive socialization through working together as a performing group in music part of the time.

4. To provide a model program for disaffected pupils that will have potential applicability-generalizability to similar situations in and out of the city.

C. Design of the Study

General Description

Under the general description of the project in the Urban Education Project Implementation Grant Application, the philosphy of direct participation is expounded:

"This program is concerned and designed to motivate, excite and involve the musically disaffected child. It is a program of cultural enrichment based on a philosophy that students "learn by doing." Built-in success factors lead a culturally deprived child through a series of experiences ranging from rote performance, to the development of skills through inquisitive searching, to the creative process of musical composition.

"One of the most important aims of the program is to engender an attitude in the child which motivates him to participate in the total school

life in a constructive way. Through success in musical activities, negative attitudes will be dimished and a healthier, school-oriented personality pattern will be shaped."[1]

Criteria for Placement

Thirty (30) students from low socio-economic status families who are below their reading norms, underachieving in school subjects, lacking in motivation to keep up with their regular schedule, suffering a high rate of truancy and absenteeism, disaffected from or non-participating in musical activities and skills, will be assigned to the ETHOS class in place of the conventional music appreciation course. These criteria for placement will be determined by a combination of information provided by students on data sheets regarding their school program and previous musical experience, information provided by them in individual interviews, teacher judgment, counselor recommendation, and standardized reading scores and other data provided from school records.

Personnel and Administration

One licensed music teacher will instruct the ETHOS class. This position is drawn from the music faculty as 0.2 of a teaching position, and is therefore not funded by the project. The Project Director is the Chairman of the Music Department, and therefore there are no budget allocations for any personnel services in the program design.

Mode of Instruction

Each student will use a portable desk organ and a soprano recorder provided in a group instructional setting the the ETHOS class for one 45 minute period 5 school days each week.[2] To facilitate this instruction, recordings and cassette tapes will be available for use by the entire class. As budgeted for,

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[1] Urban Education Project Implementation Grant Application. B/Ed No. 17-04-470. Education Through Organ Study (ETHOS), August 1970. Page PP 7.6 = 11.

[2] Reed Organ--Model: Explorer I, 3½ Octaves. Chita Nagoya, Japan. Vendor distributor, Metrop. New York Area: Sam Ash Music Corp. 122 Fulton Avenue, Hempstead, L.I., New York 11550.

programmed learning materials in music and workbook materials were to be provided for instruction of the ETHOS class in musical notation to help develop basic musical skill. The basic syllabus was to be completed by the faculty, based on the 18 week February -- June 1970 program prior to program commencement. It was to include sound exploration; familiar melodies with fingering; notation and note values; musical staffs; scales and finger patterns; phrasing, tempo and dynamics; drilling for dexterity, repertoire and performance skill (See Appendix A).

Measures to be Taken and Instruments to be Used

In addition to student data sheets to be filled-out for entry to the program, the following parameters are to be included:

1. An abbreviated form of the Pan American Music Aptitude Test to determine level of musical potential as an aid to criteria for student selection for program participants (See Appendix B).

2. An "in-house" musical achievement test developed by the Music Department and specific to the instructional components planned in the ETHOS program syllabus. This test is designed for measuring the acquisition of basic musical skill and is given twice as part of a pre/post gain study (See Appendix C).

3. Metropolitan Achievement Test data in reading and in arithmetic are to be recorded from the permanent records of the students as part of determination of the decrease in reading and mathematical deficiencies where effects of the program are supposed to carry over into improvement in academic performance. To help measure this, scores on the standardized Metropolitan tests taken in the spring of the program year are to be compared with scores received on the Metropolitans taken in the pre-program year.

4. An absence rate reduction study will be made where the effects of the program are supposed to result in better attendance in the school as a whole and in the ETHOS class in particular. To help measure this, the absence rate as recorded in the Official Class Roll Books of the program year are to be compared for reduction with the absence rate as recorded on the Permanent Record Cards of each participant for the pre-program year. Absences (including cutting) from the ETHOS class are to be studied also, as recorded on the daily Visible Record Cards of the class, and compared to school absences during the program year.

5. A Student Attitude Survey will be taken to determine whether any change in students' attitude toward education and the school has occurred as a result of participating in the program. For this purpose, a special attitude instrument has been constructed and used: "The Students' Survey--ETHOS Project On Education & The School," made of 50 validated items from the Shaw and Wright

anthology of scales (1967) as agreeable to the Music Department and modified as to wording by the Project Director (See Appendix D).[1] The instrument is to be administered twice on a pre-program to post-program basis to determine whether there is significant improvement in students' attitude toward education and the school as result of participation in the program.

6. Staff attitude will be assessed by means of weekly contact with the evaluator and a post-program questionnaire called "ETHOS Teacher's Program Evaluation Form." The Project Director's attitude will be assessed by interview means also (See Appendix E).

7. Parental attitude toward the effects of the program on their children will be assessed by questionnaire means as stated in the project proposal. This component does not appear in the research design.

D. Evaluation Objectives and Procedures

As taken from the research design of October 1970, and based on instruments of measure, school records, and statistical procedures, the following evaluation objectives relate to the goals of the program:

1. To determine the extent to which pupils learned now to use the portable desk organs and soprano recorder flutes, 75% of 60 disadvantaged students will score at least 75% on the musical achievement test, specifically constructed for the curriculum output of observable skills of the ETHOS program.

Method and Procedure: The project coordinator and his staff music teacher will devise a test of musical cognitive and performance skills based on a task analysis of the program's curriculum. The test will be administered pre- and post-, at the beginning of the program in Fall 1970 and at the end of the school year in June 1971. Means and standard deviations will be compared. Either a correlated t-test or an appropriate non-parametric statistical test will be performed. Statistically significant differences between the 1970 pre-program and the 1971 post-test data are expected.

2. To determine the extent to which students' motivation and/or success in musical skills may have transferred over to improvement in school attendance and in academic achievement:

a. Sixty (60) participants will show a group improvement in attendance resulting from a 20 to 40% reduction in absence and truancy.

b. Sixty (60) participants will show a group improvement of:
   (1) 10 to 25% in standardized reading achievement scores on the Metropolitan test battery in city-wide testing; and
   (2) 10 to 25% in standardized arithmetic achievement scores on the Metropolitan test battery in city-wide testing,

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[1] Shaw, Marvin & Jack M. Wright. Scales for the Measurement of Attitudes. New York: McGraw-Hill Book Company (1967). 604 pp.; 176 attitudinal instr.

in a comparison of scores at the end of the program year (Spring, 1971) with those of the pre-program year (Spring, 1970).

Method and Procedure:

a. Attendance levels for 1971 and 1970 will be listed from official school records. Means and standard deviations will be computed for 1971 and 1970. Either a correlated t-test or an appropriate nonparametric statistical test will be performed. Statistically significant differences between the 1970 pre-program and the 1971 post-test data are expected.

b. A study of cumulative record cards for standard scores or grade equivalents in the Metropolitan Achievement Test Battery for reading and arithmetic for Spring 1971 and Spring 1970 will be made and listed for the 60 participants. Means and standard deviations will be computed and a correlated t-test or an appropriate nonparametric statistical test will be performed. Statistically significant differences between the 1970 pre-program and 1971 post-tests are expected.

3. To determine the extent to which student attitudes toward education and the school have improved in the course of the year, an attitudinal instrument constructed from the Shaw and Wright anthology of scales as amended will be administered upon entry and at the end of the school year.

Method and Procedure: Changes in the degree of positivity of responses to every item will be listed. Means and standard deviations will be computed from scale value changes. A correlated t-test or an appropriate nonparametric statistical test will be performed. Statistically significant differences are expected.

4. The degree to which the program has been implemented will be described from the analysis of music instrumentation and highly structured learning materials; the analysis of the curriculum and skill training procedures followed through; and, the level of pupil involvement observed.

5. The degree of individualization of instruction and learning engaged in will be determined from teacher statements, classroom observation and selected pupil interview.

6. The amount of pupil socialization achieved through the practice of performing music groups will be assessed from teacher opinion and also again from classroom observations.

7. The determination of the value of the evaluation report as a model for pupils similarly disaffected in other urban locations will rest on the findings from the foregoing six evaluation objectives, and the extent to which the innovative individualized curriculum is describable and replicable.

II IMPLEMENTATION AND OPERATION OF THE PROGRAM

A. Modifications of the Program Proposal and Research Design

The following changes were instituted initially as result of delayed funding by the State Department of Education and implementation of the program which could not begin before February 1971 instead of the hoped for late fall date of November 1970. Delays also in shipment of the portable keyboard organs by the vendor set back beginning of the program until after the turn of the year.

1. Since the set-up of the portable reed organ laboratory would be in use only one period daily, it was considered useful to set up 2 additional organ study classes to serve up to 60 additional students. Less rigid criteria for disaffection would be used for placement in the two supplementary or "regular ETHOS" classes, but a more general yardstick of a lack of previous musical experience and poor academic achievement and attendance would still be sought after. Students enrolled in any of the 3 classes would take ETHOS program in place of music appreciation, and receive equivalent minor subject credit.

2. A second licensed music teacher would be assigned to cover 0.4 of a teaching position for the additional two classes from within the Music Department.

3. With the program commencing in February 1971 instead of Fall, 1970, the possibility of a 3/4ths year of 1 year syllabus for some students (ETHOS I & II) was abandoned in favor of a single 16 week syllabus for ETHOS I for all enrollees. Corresponding modifications of the syllabus outline had to be contemplated for a single musical skills course.

4. To concentrate on the reed organ for notation, scale and sight reading of musical staffs, plans to have a second musical instrument -- the soprano recorder -- were cancelled. The problem of sanitation for mouthpieces, and the problem of security for so small a pipe mitigated against use of more than one instrument -- a keyboard one for the first ETHOS course.

5. Parental attitude assessment was not included in the research design. At the early stage of musical instruction represented by a shortened program in the form of a single February - June course, with little if any parental contact with the portable organ laboratory, and an expected extremely small sample of interested or knowledgeable parents, the idea of a questionnaire to them was considered beyond the immediate scope of the evaluation instruments necessary to assess the program.

B. Setting up the ETHOS Environment

The portable reed organs were placed on half a dozen movable tables, approximately four per table to allow for 30 students, each at individual practice instruments. Each student received a copy of the John Thompson's "Adult Preparatory Piano Book," as the official text for the course, but to be returned at the end of each period, and shared as with the organs among the three classes. The reed organs were locked away in a preparation or storage closet leading off the classroom at the end of the three period--three ETHOS class daily set-up.

A budget modification allowed late purchase of 30 - 6 volt D. C. adapters and a sufficient number of octolet (8-tap electrical extensions) to permit powering of the 30 reed organs from the two inadequate electrical outlets in the classroom.

The instruments were so arranged on the tables that every student could view the blackboard. From that point on teaching-learning transactions occurred each period with the teacher in a didactic central stance, heavily using the blackboard. Students working with the reed organ and Thompson's piano book responded mostly in group unison with interspersed small group and individual responses. Response mode was almost always an instrumental one with relatively few verbal responses evoked from these students whose verbal repertoires and life styles in school disfavored such a response mode.

No homework was assigned since the selected students had no musical instruments at home.

The ETHOS project extended throughout the Spring term, 1971, February-through-June inclusive, encompassing 89 school days.

C. Selection of Students

The ETHOS special class was to consist of 30 students who were most disaffected from music or cultural activities. The absence of prior musical training is an absolute criterion for entry into the ETHOS class, it has been stated. Underachievement in reading and mathematics follows. High truancy and cutting rate is the third area of criterion for entry, it has been written. Finally, high mobility and a lack of motivation to attend school is mentioned. These four bases of disaffection for entry into the program appear on page 7 - 40 of the New York State Urban Education Project proposal.

Selection by ETHOS staff, home room teachers and guidance personnel from lists of students available and normally assigned to the music appreciation course or hygiene went through the intermediary of the high school Program Committee where the logistics of balancing pupils and courses available the fourth period from music appreciation and hygiene, tended to outweigh considerations of the above listed criteria. It was at this final placement stage that the Program Director did not have adequate control over student input into the program.

The two additional classes were constituted via the Program Committee to make skill instruction on the portable desk organ available to a larger number of students over a three-period time span daily. The above criteria for admission were to be less rigidly applied so that through random selection of general diploma candidates, the second music teacher would add two classes of students to the ETHOS project who more nearly represented the average population for the school. Again students were not to have had prior musical training. It should be kept in view that by definition students assigned for general diploma suffer extensive deficits in reading, mathematics, other academic skills, usually motivation and often have poor attendance records.

It could therefore be anticipated that there might be less difference between the Special ETHOS class and the other two "general" ETHOS classes than originally anticipated.

Student numbers at maximum registration for each class, as of March were:

Special ETHOS Class		24 students
General ETHOS Classes:	#1-214	31 students
	#1-216	39 students
	Total	= 94 students.

As of June, 1971, on the basis of post-testing and attendance records, these same classes were:

Special ETHOS Class		11 students
General ETHOS Classes:	#1-214	15 students
	#1-216	22 students
	Total	= 48 students.

Thus approximately 51% of those initially enrolled, remained in the program to the end.

D. Testing Procedures

Upon entry into the program, each registrant was to receive a battery of three tests:

1. The modified Pan-American Music Aptitude Test.
2. The ETHOS Achievement Test, an "in-house" produced departmental instrument.
3. The Students' Survey -- ETHOS Project on Education & The School; the student attitudinal instrument.

The tests were administered on separate days.

The Pan-American Music Aptitude Test, as modified by abbreviation. The students were given only four sections of the full test as originally designed, totalling 20 items: I Rhythm; II Pitch; III Melody; IV Chords.

For each section 5 examples were played, each one twice. If the second or repeated sample was identical to the first sample, the student answered positively by writing "plus" (+); if different, he wrote "minus" (-) on the answer sheet. Scoring was based upon granting 5 points for each correct response times 20 items gave 100 points of score or equivalent percentage values. (See Appendix B).

The ETHOS Achievement Test. Narrowly focused only on the syllabus of the ETHOS program by its designers on the teaching staff, there were 30 items on the 10 sections into which the test was divided: pitch, duration, major/minor chords, time and its signatures, sight reading, and recitation recall. Score values ranged from 1 to 6 points per item, totalling 100 for direct readout of student percentages. (See Appendix C).

The Students' Survey -- Attitudinal Form. This 50 item instrument, modified from the Shaw & Wright anthology of 1967, was based on a 5-point scale of opinion from strong agreement through indecision to strong disagreement. There are 3 subsections to the test, and an average score was computed in terms of the 5-point scale or value system. Items deal with students' attitudes toward education in general; the school in particular including teachers, classrooms, subject areas and school rules; and, relation of education to the world of work. (See Appendix D).

The above described data was kept on specially designed cards called: ETHOS STUDENT RECORD shown below in Figure 1.

Insert Figure 1

Figure 1

ETHOS STUDENT RECORD

GWW HS ____ ETHOS STUDENT RECORD ____ SFW-1/71

S _____ B.D. _____ C.A. _____ Gr. _____

Attendance W 70-71	Present Dy	% Attend.	ATTITUDE SURVEY Pre- 2/71	Pt. I	Pt. II	Pt. III	Total
	Absent Dy	% Absence					
Sp '71	Present Dy	% Attend.	Post- 6/71	Pt. I	Pt. II	Pt. III	Total
	Absent Dy	% Absence					

Metrop Achvmt	READING G.E.	Pctl	ARITHMET. G.E.	Pctl
Sp/'70				
Sp/'71				

Local Music Achvmt	PRE - TEST				Σ
Feb/'71					
	POST - TEST				Σ
Jun/'71					

ANNOTATIONS: _____

_____ _____

(Notes Cont'd. on Back)

ETHOS Teacher's Program Evaluation Form. Each of the two music teachers was given a two page evaluative set of sheets to guide him in accounting for all areas of the program. This evaluative instrument was thus designed to replace the teacher's so-called "professional report," a required end-term open-ended essay to be written on any special project engaged in. It replaced the loose essay with 10 areas of specificity dealing with: student progress in musical skill as a group, evaluations of methods for teaching used, material used, motivational techniques observed, attendance changes recorded, student attitude changes and cooperation noted, problems and possibilities that occurred, effects of the program on other student work where known, and coordination level achieved with other faculty. (See Appendix E).

On the last week of full student attendance in the program in mid-June, each of the 51% of originally enrolled participants who stuck out the program, received a battery of two tests as his post-measure for the program:

1. The ETHOS Achievement Test. This was an identical copy of the pre-test in achievement. No alternate forms were developed.

2. The Students' Survey — Attitudinal Form. This was also identical to the pre-program attitudinal evaluation. Alternate forms were not developed.

The "t - test" of significance between means on matched pairs of samples was used for these two instruments to determine whether progress made in skill achievement and improvement shown in student attitude was statistically significant during these 18 short weeks of the program's initial operation.

E. The ETHOS Syllabus and Learning Situation

The ETHOS syllabus as developed by the Project Director and Special ETHOS teacher, both skilled musicians and on staff of the Music Department, was described earlier, and has been reproduced in Appendix A. The general sequence consists of: sound exploration of familiar melodies with fingering; discrimination series for pitch, duration, tempo; creation of original melodies-one octave; expansion of play range; note values and their symbols; staffs, their functions, symbols and naming; left and right hand playing; sharps, flats and scales with finger patterns; phrasing, tempo and dynamics; phrasing, tempo and dynamics in simple composition design; drillwork for coordination, dexterity and speed; repertoire building with emphasis on individualization; end-course individual and group performance; and, e v a l u a t i o n.

Three texts were examined before the John Thompson's: Adult Preparatory Piano Book, published by Willis Music Company, Cincinnati (1962) was chosen by the Project Director. The music progression presented therein is both extensive and rapid so that quicker learners are not limited. It was considered more suitable to age and level of sophistication of student as an adult-oriented text to stimulate motivation and upon which to model musical skills behavior. John Thompson's: The First Grade Book - Something New Every Lesson, Willis Music Co. (1936) with elementary school type pictures on the pages to color in, was considered aversive to tuning in the students and negative to self-image building. The text moves very slowly and does not take in all the needed concepts in the ETHOS syllabus. John W. Schaum's: Shumann-Schaum for Piano: Book One Based on Events and Episodes of Schumann's Life, Belwin, Incorporated, Rockville Center, New York (1947), in its focus on only one composer distant from the students' cultural interest, only has performance material, lacks in music fundamentals presentations, lacks drill material, and lacks an adult approach.

The planned extensive use of taped materials for helping teach fundamentals in music discrimination, as an aid to practice, and for supplementing the textual material with self-pacing, individualized, programmed instructional materials, was not realized. Nonetheless, some recorded material was used in an ETHOS class occasionally.

* * *

III FINDINGS OF THE ETHOS STUDY

A. Musical Skills Acquired

ETHOS classes of the two teachers were visited weekly throughout the duration of the program. Table 1 shows the principal topics on the Wednesday observations, week-by-week for the Special ETHOS class and one other Regular ETHOS class of the second teacher for a 16 week period, February-June 1971.

Insert Table 1

Although all classes began at the same place -- fingering, they tended to diverge in sequence and rate of forward movement. The sequence also does not correspond very closely with that given in the syllabus (See Appendix A). The original syllabus document had been lost, and was regenerated toward the end of the project ex post facto by the ETHOS teacher and Project Director. By the end of the program term, the special ETHOS class was up to pp. 28-29 in the John Thompson's "Adult Preparatory Piano Book;" the other (regular ETHOS) classes were at pp. 14-15. Part of this discrepancy relates to the way each week was organized. The Special ETHOS class teacher adhered to a heavy didactic teaching schedule 5 days a week. The teacher of regular ETHOS classes arranged much individual practice work Thursdays, and had students bring in their own music or create same Fridays. This could include advanced work from their John Thompson texts. Thus there was less time for group paced forward movement in the text on a daily basis.

Upon interview, both ETHOS teachers indicated no formal meetings between them and little if any coordination on program.

It was indicated earlier that no programed instructional materials was

Table 1

ETHOS Classroom Observations by Main Topics

Week	Special ETHOS Class	Regular (Second) ETHOS Class
I	Pre-testing	Pre-testing
II	Fingering	Fingering
III	Beats and Measures	Rounds
IV	Staff Notation and Note Values	Left and Right Hands; Clefs
V	Attitude Survey (4 weeks overdue)	Sharps and Flats; 2-Hand Practice
VI	Reading Notes	Reading Notes
VII	Parents visiting; class cancelled	Parents visiting; class cancelled
VIII	Crossing Hands; Individual Play Progressions	Notations; Time Signatures
IX	Beats and Measures; Time Signatures; Sharps and Flats	Left Hand Practice Drill; Notation Staff Review
X	Teacher absent; class cancelled	Instruments not set up; class cancelled
XI	Teacher absent; class cacelled; Students absent; "Spring Offensive"	Left-Right Hand Combinations
XII	Phrasing in Twos	Review of Fundamentals; End - Part I - Music Text
XIII	Phrasing; Key Signatures	Timing; Key Signatures
XIV	Phrasing; Tonal Shading; Staccato	Sight Reading; Finger Drill
XV	Major Scales; Thirds	Time Signatures
XVI	Post-testing	Post-testing

NOTES:
Limit of advance into John Thompson's "Adult Piano Preparatory Book."
Special ETHOS Class: pp. 28-29. Regular ETHOS Class: pp. 14-15

Regeneration of lost original Syllabus, ex post facto -- by week XVI.

used, and little recorded material to further individualize the instruction. The learning situation observed thus tended to remain a didactic, teacher-dominated one characterized by extensive group work, some individual response on the instrument, and very little verbal output by the students. This was more fully described earlier in Section II (Chapter II), Subsection B: Setting up the ETHOS Environment. Thus a teaching model has persisted in the ETHOS project little different from that which has turned disaffected students away from other subjects. The one important difference, however, has been the presence of an instrument to respond on, with musical output, and the John Thompson's "Adult Preparatory Piano Book," which has provided a physical basis for sustained motivation in the program.

Students in the classes were observed to be acquiring musical skills and knowledge, noticeable from week to week. The formal measurement of this gain in skills rested primarily on the achievement test, given at the end of the program, an identical instrument with the one administered at the beginning (See Appendix C: "In House ETHOS Achievement Test"). Table 2 presents the comparison of results on the two test administrations.

Insert Table 2

Evaluation Objective # 1 of the research design called for 75% of 60 disadvantaged students (45) to score at least 75% on the musical achievement post-test, specifically constructed for the curriculum output of observable skills of the program. With only 8 out of 66 originally enrolled students achieving this criterion (12.1% instead of 75%), Evaluation Objective # 1 has not been met. With only 42 students countable in post-testing, less than 75%

Table 2

ETHOS Achievement Test Results

	Special ETHOS Class		Regular ETHOS Class 1-214		Regular ETHOS Class 1-216		Totals 3 Classes	
	No.	%	No.	%	No.	%	No.	%
PRE-TEST								
No. of Students	14		22		30		66	
Mean Score		17.7		24.8		29.6		25.5
POST-TEST								
No. of Students	11		14		17		42	
Mean Score		60.4		67.9		66.1		65.2
CRITERION								
No. of Students	3		3		2		8	
Percent of Stud in Post-test Passing Crit. Score of 75%		27.3		21.4		11.8		19.0

Table 3

Significance of ETHOS Achievement Test Scores

	Special ETHOS Class N = 9*	Regular ETHOS Class 1-214 N = 14*	Regular ETHOS Class 1-216 N = 14*
PRE-TEST			
Mean Score	20.0	25.8	35.8
Stand. Deviation	5.8	10.5	19.5
POST-TEST			
Mean Score	63.6	67.9	66.0
Stand. Deviation	12.8	6.2	10.3
DIFFERENCE			
Mean Diff.	43.6	42.1	30.2
Stand. Dev. of Diff.	15.7	13.7	19.0
Stand. Error of Diff.	5.6	3.7	5.1
CALCULATED CORRELATED t VALUE	7.8	11.4	5.9
TABULAR CORRELATED t VALUE (.05 level)	2.3	2.2	2.2
SIGNIFICANT DIFFERENCE (+) or No Sig. Diff.	+	+	+

* N = matched pairs of scores of the same students who took both pre- and post-tests.

of the entrants remained to complete the program, and their average post-test scores ranged about 65%. Several explanations for this include the failure of instruction to cover much of the area included on test items 20 through 30. The test had been designed prior to inception of the program, and the syllabus plan was not fully covered. Furthermore, the last 11 items on the test have been 60% of the weight of the examination, whereas the first 19 items representing the better covered portion of the curriculum, have received only 40% of the test's weight.

Table 3: Significance of ETHOS Achievement Test Scores, does show, however, great gains among those students remaining in the program at the end. It analyzes these gains statistically for significance in terms of Students' "t" scores between correlated means.

Insert Table 3

In choosing the "t" test of significance among correlated means, the before and after achievement test scores are compared for each student remaining in the program at the end. Hence, the concept of correlated means. The larger number of students starting at the beginning has been ignored, and the means along with its standard deviation for each class recomputed on the basis of those sticking with the program from beginning to end.

Again the special ETHOS class showed the lowest scores and appeared most musically disadvantaged at the start of the program with a spread of over 15 percentage points behind one of the less selectively chosen regular ETHOS classes. By the end of the program, all classes were within 3½ score points of each other with the special ETHOS class only slightly behind the others. The calculated t scores showed that the gains were very highly significant for all classes,

and unlikely to occur by chance, despite the failure to achieve the criterion of 75% of students scoring 75% or better on the post-test (Evaluation Objective #1). The degree of significance of gains for the special ETHOS group equaled or exceeded that for the other two ETHOS classes.

With all 3 classes having been brought to near the same level of achievement at near 65% on post-test means, the instruction did not seem to discriminate among the quality of students selected for the different classes. However, even this statement must be couched in guarded terms, since the teacher of the two regular ETHOS classes completed the post-test questionnaire to each student himself, putting down the scores he was "sure" they were at by end of the course rather than allow students to determine their own exit point. The resulting uniformity of scores represented the teacher's repudiation of the need for a post achievement test as criterion to the "excellence" of his instruction.

Finally, we must ask the question, was the highly significant and greatly similar achievement results in the musical skills among all 3 classes, a reflection of similarity in musical aptitude among participants? Looking at the scores on the abbreviated (20-item) Pan-American Music Aptitude Test (See Appendix B), we must answer the question affirmatively! The scores converted at 5 points each to percentages were as follows:

Special ETHOS Class:	Mean Score = 80.8% with N = 13. Score range 60 - 95.
Regular ETHOS Class: (Cl. 1-214)	Mean Score = 80.0% with N = 21. Score range 65 - 95.
Regular ETHOS Class: (Cl. 1-216)	Mean Score = 78.8% with N = 35. Score range 60 - 100.

The great similarity in class averages with scores within 2.0 points, the great similarities of score ranges, and the relatively high aptitude level suggests that despite other educational deprivations and disaffection, basic ability to discriminate among rhythms, pitches, melodies and chords was quite

good among program participants, and nearly equally so.

The giving of the aptitude test in the classes after they were formed, unfortunately disqualified the Pan-American as a selection criterion instrument for placement, and as far as is known, no student was rejected or removed because he lacked apparent ability to acquire the basic skills to be taught.

B. Student Attitudes

The Students' Survey -- ETHOS Project On Education & the School (See Appendix D) as constructed from the Shaw and Wright anthology of attitudinal instruments, was also given on a pre- and post-program administration basis to assess possible changes in student attitudes as a result of the basic musical instruction and musical skill acquired.[1] Table 4 presents the comparison of means for the 3 ETHOS classes on the two administrations of the attitudinal instrument.

Insert Table 4

A slight improvement was shown on positivity of attitude in each of the three ETHOS classes by approximately the same amount -- 0.1 of a score point which is 1/40th or 2½% of the score range. Again a greatly reduced number of students took the post-program attitude measure. The drop-off rate was close to 50%. The small gain in attitude could be due to the less positive students selectively dropping out of the program. This possibility is explored in

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[1] Shaw, Marvin & Jack M. Wright. Scales for the Measurement of Attitudes. New York: McGraw-Hill Book Co. 1967.

Table 4

ETHOS Attitude Changes

	Special ETHOS Class		Regular ETHOS Class 1-214		Regular ETHOS Class 1-216		T o t a l s	
	No.	Points	No.	Points	No.	Points	No.	Points
PRE-PROGRAM								
No. of Students	17		23		37		77	
Mean Score*		3.9		3.9		3.8		3.9
POST-PROGRAM								
No. of Students	10		9		20		39	
Mean Score*		4.0		4.1		3.9		4.0

* Scores based on a 5-point scale with 5.0 representing strong agreement and 1.0 strong disagreement. The range is thus 4.0 points wide; 3.0 stands for undecided.

Table 5

Significance of ETHOS Attitudinal Changes

	Special ETHOS Class N = 7*	Regular ETHOS Class 1-214 N = 9*	Regular ETHOS Class 1-216 N = 19*
PRE-TEST			
Mean Score	4.1	4.0	3.8
Stand. Deviation	0.3	0.4	0.6
POST-TEST			
Mean Score	3.9	4.1	3.9
Stand. Deviation	0.6	0.5	0.3
DIFFERENCE			
Mean Diff.	-0.2	0.1	0.1
Stand. Dev. of Diff.	0.3	0.3	0.3
Stand. Error of Diff.	1.2	0.1	0.07
CALCULATED CORRELATED t VALUE	-1.7	1.0	1.4
TABULAR CORRELATED t VALUE (.05 level)	2.5	2.3	2.1
SIGNIFICANT DIFFERENCE + or No Sig. Diff.	n.s.d.	n.s.d.	n.s.d.

* N= matched pairs of scores; the same students who took both pre- and post-tests.

Table 5 where only those taking both pre- and post-program measures were tallied and analyzed for significance of difference before and after by means of a correlated "t" test.

Insert Table 5

In the case of the special ETHOS class, there was a 0.2 point drop covering 5% of the scale range. For the other two classes, the gain was very slight -- 0.1 point among 28 students. Only 7 students in the special ETHOS could be compared on the correlated t-test. In either case, these small changes in attitude represent for all 3 classes n. s. d. (no significant difference) on the correlated t-test for the statistical analysis. Such variation in attitude as shown here could occur by chance alone without a program. Perhaps the time period of only 4 months from February to June was not great enough to register significant changes in attitude. Or, the skill level attained in one-half of a program that was originally planned to run a full school year was not sufficiently reinforcing to the enrollees.

Thus the program criterion, as stated in the research design that 75% of the students would "....demonstrate statistically significant improvement in positivity of attitude toward their education and the school...." was not met.

The hypothesis (from Table 4) that small gains in attitude were accumulated as result of selective dropouts by poorer students could be confirmed only for the Special ETHOS class (in Table 5). But the reduced sample number (7) left for matched pairing and lack of statistical significance in the differences obtained did not suggest evaluation of the power of this hypothesis.

C. Faculty Activities and Attitudes

The two music teachers were observed once each of 18 weeks in the full teaching sequence for the ETHOS program. As stated earlier, they presented a didactic teacher-dominated model of solid traditional classroom instruction with a three and one-half octave prtable reed desk organ on the table for every student as operational medium for student response both in group and individually. Programed instruction was not employed as a technique -- the whole group instructional mode was used most of the time -- and very seldomly was recorded material in the form of phonograph records or tapes employed as a medium of instruction. The mainstay was the chalk board, teacher at piano and the John Thompson's "Adult Preparatory Piano Book" which served as daily classroom text. Students did not check out the instrument so that homework in the form of music practice outside the classroom was not given.

The two teachers prepared lesson materials by the week and worked diligently and professionally with their student groups in the teaching game, but they tended to work independently of each other. Refer back in this chapter to Section IV A, Table 1: ETHOS Classroom Observations by Topics to note the divergence of activities between the two teachers. Although they stated some level of coordination had occurred between them at the 6th week, a general progressive lack of communication left their reports, made in writing by the end of the program, that coordination of lessons and activities was nil or did not occur.

On the 18th and final week, the two teachers completed their faculty report on the project to the Project Director. The instrument appears as a 10 item questionnaire entitled: ETHOS Teacher's Program Evaluation Form" (See Appendix E).

There was considerable area of agreement, or more appropriately coincidence, among them on most of the items. Table 6 summarizes their responses.

---------- Insert Table 6 ----------

Table 6

Teachers Evaluation of the ETHOS Program

Item	Teachers' Reactions (N = 2)
1. Student Progress In Musical Skill	2 - Strongly positive. Specifically: Identify and play simple: melodies, rhythms, harmonies to produce recognizable songs.
2. Methods & Materials Used	The John Thompson's Adult Prep. Piano Book Teacher Lesson Plans Other Materials
3. Motivation Techniques That Worked	Class Organization The John Thompson's Musical Text Teacher interest in individual students Performing for one's peers.
4. Overall Attendance	1 - Decline in attendance from middle to end of course. 1 - No change from beginning to end.
5. Level of Student Cooperation	2 - Strongly positive
6. Overall Student Attitude	1 - Increasingly positive towards end. 1 - Maintained good level throughout.
7. Special Problems	1) Unreliable musical instruments 2) Inadequate electrical wiring 3) Class size too large.
Favorable Possibilities	1) Transfer organ skill to piano 2) Active experience performing in music.
8. Effects of Program on Other Subj. Areas	2 - No information
9. Degree of Coordination Among 2 Teachers of ETHOS Team	2 - None or nil
10. Summary Statement (Opinion or Feeling)	2 - Good possibilities in program; 2 - Continue program.

The two teachers noted the marked improvement in musical skill produced by the program and an increasingly positive student attitude with time for those remaining with the program. The motivational effects of the program and its instrumentation were positive for those remaining in it. However, attendance tended to fall with the passage of time. It was impossible to assess the transfer effects of the acquired musical skill to piano or other areas of music in the short 4 months for this evaluation. Nor was it possible to determine objectively motivational effects on other subject areas or on prevention of actual school dropout in the time alloted. As indicated in the preceding section, improvement in student attitude toward education and the school on the student attitudinal survey instrument, was not significant. Mechanical problems with equipment, electrical outlets, room layout and work tables also frustrated forward movement in the program. No funds had been allocated for equipment maintenance and repair.

Failure of the two teachers to coordinate instructional activities was heightened by the loss of the original curriculum design or syllabus for the course at its inception. It became necessary for the teacher and the Project Director who authored it to redo their work which appears in Appendix A. However, it was not reconstituted until the end of the program year. Thus the characterization of the instructional sequence has been rendered more difficult, and its weaknesses as well as its strengths more difficult to identify.

D. Changes in Student Attendance

It has been pointed out that student attendance fell off sharply during the first half of the Spring term. Students remaining in the ETHOS classes by midterm tended to follow through to completion.

Two kinds of attendance studies have been followed in this program:

The first one, is an absence study of students in terms of the entire school day.

The second one, is the study of absence from the ETHOS class only, which includes cuts just from this class and includes attendance only at the ETHOS class where otherwise absent from the whole school day.

Table 7 compares all absence rates both in terms of the entire school day and the ETHOS classes only, both for the project term--Spring 1971 and the pre-program term--Fall-Winter 1970-71. These data are shown both for the program retainees and the program dropouts.

Insert Table 7

Table 7 shows the specially selected more disaffected students assigned to the Special ETHOS class distinguished themselves as a group from the regular ETHOS classes in several ways:

1. A higher whole school day absence rate by about 2:1 for the Special ETHOS group program retainees.

2. A lower whole school day absence rate for Special ETHOS group program dropouts.

3. Practically no difference in absence rate between program retainees and program dropouts on whole school day data within the Special ETHOS class group, compared to much higher school absence rates for program dropouts from the regular ETHOS classes.

4. Higher absence rates on whole day school absence for the Special ETHOS group who remained in the program this spring than in the pre-program term, compared to mixed (higher one class/lower other class) results from the regular ETHOS relatively non-selected groups.

5. Regarding the second kind of absence studied -- ETHOS class absence only -- much lower absence rates by about half on all 3 ETHOS classes attendance records for those remaining with the program all 18 weeks, than for whole day school absence as determined from Official School Absence Records.

Table 7

Comparative Absence Rates ETHOS Program Retainees vs. Dropouts
(Average Absence in Days and in Percent of Total School Days)

	Special ETHOS Class		Regular ETHOS Class 1 - 214		Regular ETHOS Class 1 - 216	
	In thru End N=11	Drop Out N=13	In thru End N=14	Drop Out N=15	In thru End N=21	Drop Out N=17
SCHOOL ABSENCE. Spring 1971. Project Term. (89 days)	13.2 14.8%	13.6 15.3%	5.7 6.4%	23.7 26.6%	7.8 8.8%	15.9 17.9%
SCHOOL ABSENCE Winter 1970. Pre-Project Term. (85 days)	10.3 12.1%	16.0 18.8%	5.9 6.9%	12.3 14.5%	5.4 6.4%	14.7 17.3%
ETHOS CLASS ABSENCE OR CUTS ONLY. Spring 1971. (89 days)	6.2 7.0%	21.0 23.6%	3.0 3.4%	28.9 32.5%	3.2 3.6%	13.1 14.7%

Table 8

Significance of ETHOS Absence Changes*

	Special ETHOS Class N = 10		Regular ETHOS Class 1 - 214 N = 15		Regular ETHOS Class 1 - 216 N = 22	
PROJECT TERM. Spring 1971. (89 days)						
Mean Absence Days	13.2		5.7		7.8	
Standard Deviation		11.9		6.5		9.3
PRE-PROJECT TERM. Winter 1970-71. (85 days)						
Mean Absence Days	10.3		5.9		5.4	
Standard Deviation		9.5		4.4		4.4
DIFFERENCE						
Mean Difference (days)	-2.9		+0.5		-2.6	
Stand. Dev. of Diff.		7.5		4.8		8.4
Stand. Error of Diff.		2.5		1.3		1.8
CALCULATED t VALUE	1.2		.38		1.4	
TABULATED t VALUE	2.6		2.15		2.08	
SIGNIFICANCE (+ or nsd)	n.s.d.		n.s.d.		n. s. d.	

* Taken from Official School Records counted in days absent.

N = matched pairs of days absent of the same students in project term and pre-project term.

This suggests students sometimes "cut in" or dropped into school without otherwise registering their presence just to attend ETHOS class, and then cut out again.

On the study of statistical significance of absence rates for those completing the ETHOS course, compared to their absence rates during the pre-program year, Table 8 summarizes this parameter, utilizing a correlated "t" test based on means and standard deviations for all students completing the ETHOS course, and completing the pre-program term -- Fall-Winter 1970-71.

Insert Table 8

The Special ETHOS class had the highest difference rate between the pre-program semester and the project semester in Spring, 1971. It also suffered a net increase in average absence rate from pre-program to project term by almost 3 days, although the sample size was considerably smaller (only 10 program retainees) than for the two regular ETHOS classes. The Special ETHOS class showed the widest deviation from the mean scores in its higher standard deviation rates.

Regardless of whether the absence rates for a particular class group increased somewhat or decreased, the calculated t scores for test of correlated means between pre-program and project semesters failed to exceed the tabular t values. Hence, in all cases, the changes in absence rate were <u>not statistically significant</u> at the .05 level of probability (two-tailed test).

The demand for group improvement in absence reduction, stated as a criterion measure on the Evaluation Objective #2 A of the design for the program was not met in two ways:

1. There were not 60 participants measurable by end of the project, but only 47.

2. Absence reduction by from 20-to-40% from pre-program to program semesters was not met by a wide margin of no significant change.

E. Academic Achievement

The measure of changes in academic achievement from the year before the ETHOS program to the spring term 1971 through study of Official School Records, has been based on the hypothesis that the motivational input of the musical skills program would carry over into academic achievment.

Reduction of deficit in reading and mathematics was to be measured by recording scores from Metropolitan Achievement Tests of other standardized instruments on a two-year basis.

Examination of official Cumulative Record Folders in the school revealed:

1. Incompleteness of entry of standardized reading scores. Most reporting sas in Grade Equivalents for reading only.

2. Use of tests other than the Metropolitan Achievement Tests (1959 edition, revised) for a proportion of those tested. Such tests as the Nelson Reading Test and Minnesota Test of Minimum Competence in Reading (percentile ratings only) occupied a part of the records examined.

3. The almost total absence of standardized test scores in mathematics on the students' Official Record folders for their high school careers.

4. The administration of Metropolitan Achievement Tests among relatively few students in the Spring of 1971 -- primarily 9th graders with extensive absence in showing up for the test among those assigned.

These findings were confirmed by interview with guidance counselors and reading coordinators for the various grades. The offer to have us re-test all ETHOS students for reading on the Metropolitan instrument -- a procedure not called for in the design of the study -- was made in mid-June, too late to implement with already half the participants having dropped out, and others assigned on priority to Regents and City-Wide examination testing.

Table 9 presents the summary of data on the reading scores available to approach a study of change in academic achievement among program participants as closely as possible by comparison of test results during the program term with scores of the preceding year.

---------- Insert Table 9 ----------

Table 9

Changes in Academic Achievement from ETHOS

Metropolitan Achievement Test Scores for Reading in Mean Grade Equivalents for each Group

	1970		1971		Average Progress Grade	Modal Progress Grade
SPECIAL ETHOS CLASS						
Retainees	6.7		7.2		10th	10th
No.		6		4		
Dropouts	5.4		4.9		10th	10th
No.		10		2		
REGULAR ETHOS CLASSES						
Class 1-214						
Retainees	8.0		--		11th	12th
No.		10		0		
Dropouts	6.6		--		11th	10th
No.		6		0		
Class 1-216						
Retainees	7.0		6.9		9th	9th
No.		4		13		
Dropouts	5.8		6.5		9th	9th
No.		9		8		

Those trends observable from inspection of Table 9 reveal:

1. A reading deficit of 3 or more years for the Special ETHOS group; a reading deficit of 3 or more years for upper classmen of one regular ETHOS group, and of 2 or more years for lower classmen of the second regular ETHOS group. The Special ETHOS class had the highest overall reading deficit, thus tending to corroborate that this group had been correctly selected as that group of students most disaffected from school achievement.

2. Gains from pre-program to program year for those participants who were tested and retested were less than 1.0 years in extent, and in fact showed losses for two of the subgroups (allowing for small sample sizes and a lack of matched sample pairs). In short, participation in the program failed to reduce reading deficit as measured. This failure to reduce reading deficit did not therefore meet the 10-to-25% group improvement criterion in standardized reading achievement scores demanded in the design of the study.

3. Students with initially lower reading scores tended to constitute dropouts from the program. Conversely, students with the least reading deficit tended to be motivated to complete the program. This self-selecting difference was large and consistent for all 3 ETHOS classes. In short, the very students most disaffected from school work and achievement and for whom the program was supposed to be most applicable were the ones most likely not to stay with it. These program dropouts (for whom records were available) tended to show reading deficits in excess of 4 years.

Metropolitan Achievement scores in mathematics on a pre-program basis were available from only 7 students pooled from all ETHOS classes as follows:

Grade Equivalents	Progress Grade
5.8	8th
0	9th
4.9	8th
6.0	8th
6.2	8th
6.2	9th
4.7	8th
Mean Score = 4.8	8.3 = Average Progress Grade.

There was no program year follow-up testing in mathematics for any of these samples. No inference concerning the effects of the ETHOS program on mathematics achievement can therefore be drawn.

Of the 92 program participants in the 3 ETHOS classes, only 12 could be studied as matched pair samples on pre-program to program term reading gains, as determined by records of standardized achievement testing. These cases are

---------- Insert Table 10 ----------

listed below in descending order of score change for test-retest.

Table 10

Two Years of Metropolitan Reading Achievement Testing--
Presented as Matched Test Pairs for Each Student

STUDENT NO.	1970 Grade Equivalent	1971 Grade Equivalent	Changes in Grade Equivalent
1	9.3	11.3	+ 2.0 years
2	5.1	7.1	+ 2.0 years
3	9.3	10.7	+ 1.4 years
4	5.8	6.7	+ 0.9 year
5	5.8	6.2	+ 0.4 year
6	6.9	7.1	+ 0.2 year
7	6.1	6.3	+ 0.2 year
8	5.2	4.9	- 0.3 year
9	5.0	4.7	- 0.3 year
10	5.6	5.2	- 0.4 year
11	5.7	5.2	- 0.5 year
12	5.7	4.8	- 0.9 year
MEANS: (N = 12)	6.3	6.7	+ 0.4 year

These changes represent on the average (averaging a gain of only + 0.4 of a year) less than could be expected from normal student growth alone without intervention of any special program.

* * *

IV CONCLUSIONS & RECOMMENDATIONS

A Conclusions from the ETHOS Study

Relating the findings just presented to the objectives of the project, certain conclusions may be offered as detailed below, keeping in mind that the five months operation of the program and the small population samples involved suggest a certain tentativeness to some of the conclusions.

Conclusions to Primary Objectives

The following four conclusions are keyed to the primary objectives listed in Section I from the analysis of the problem.

1. The combination of portable desk organs, highly structured music learning books and strong music teaching within the structured ETHOS music syllabus is effective in producing highly significant gains in the acquisition of musical skills and knowledge through a process of direct participation and feedback. (This conclusion is keyed to primary objective #1). The measurement instrument has been the In-House ETHOS Achievement Test (Appendix C) administered on a pre-post-program basis, but no determination has been made within this conclusion of the relative weights of contribution of the live teaching, musical instruments or Thompson music books. Furthermore, as a subordinate part of this statement, it can be tentatively concluded that the teaching-learning process was sufficiently generalized in producing highly statistically significant learning gains to not discriminate among the Special ETHOS and the regular ETHOS student class groups.

2. The ETHOS program produced no significant difference in absence rate for participants among the semester of its operation as compared to absence rate of these same participants the pre-program semester. This

conclusion is keyed to primary objective #2A. Although sample sizes were limited (totalling 36) in restricting this study to only those remaining in the program to the end, the failure to reduce absence significantly was consistent for all ETHOS class groups, and, in fact, absence rates went up slightly in two of the three classes during program operation. Students who dropped out of the ETHOS program by mid-semester were not compared in the correlated t-tests of significance.

3. Nothing in the ETHOS program can be concluded to carry over into academic achievement. On the basis of limited statistical evidence, this type of skills program does not appear to induce auxillary changes of transferring into the area of reading skills. In the area of mathematical skills, no conclusion is offered on the basis of not having obtained comparative data. This conclusion is keyed to primary objective #2b.

4. The ETHOS program produced no significant improvement in positivity of attitude improvement toward education and the school among program participants during the five months of its operation. This conclusion is keyed to primary objective #3. Slight gains in positivity of attitude in the three ETHOS classes to the extent of about 1/40th or 2½ percent of the score range could be attributed to the self-selection of students with the more positively oriented remaining in the program, and the most disaffected dropping out. This correlates with the data that those who dropped out tended to have higher absence rates and lower reading scores. Within the narrow time span of the program, the above should not be thought of as a hard conclusion, but a tentative indication of directions.

Conclusions to Secondary Objectives

The following four conclusions are keyed to secondary objectives 4 through 7 in Section 1B of the analysis of the problem.

1. From weekly on-site observations and close examination of all program components and materials in use, it can be concluded that the most critical program components were implemented that allowed it to function effectively, but that all of the components as originally listed in the research design were not present. As keyed to objective #4, wind instrument training was abandoned at the beginning of the program in favor of concentration entirely on the portable desk reed organs. The target population, it can also be concluded came overwhelmingly from low socioeconomic status homes, and for every participant, via the vehicle of instruction, their focus was on learning by doing.

2. Individualization of instruction was an incompletely implemented secondary goal, it is concluded from ongoing weekly observations. As keyed to objective #5, on the positive side, the guided individual use and feedback on the portable desk organ by each student represented a feature of individualization not found in music appreciation courses, but found in instrumental practice groups. On the other side, was the absence of highly structured or programmed learning materials presented for self-paced or autoinstruction. Adequate as the John Thompson well structured traditional music books were as text for the course, they were used within the context of traditional teacher-led instruction. Student responsibilities for their own learning was thus not directly fostered, but heavily dependent upon teacher modelling behaviors and on small group practice in unison or

serial playing of the same materials. The absence of a pre-set syllabus during most of the term allowed more flexibility in teaching patterns, which was used by one of the teachers to have more open-ended individual student practice sessions. However, this was accomplished at the expense of covering considerably less material in the text than was encompassed by the other faculty member. No instrument was designed to assess degree of students' sense of responsibility for their own learning, and individual interviews did not throw light on this dimension of objective #5.

3. No conclusion is offered on the degree of positive socialization fostered through working together as a performing group in music part of the time, as called for in design objective #6. While student cooperation with the teacher remained on a high level throughout the program, it has not been possible to assess whether this was due to the force of teacher energy and personality in the instructive process, due to student motivation with the instrumentation in the course, or to a combination of factors. Discipline problems in the ETHOS classes were minimal; a certain level of noise and discourteous fooling with the organ keys was considered normal, and the teachers as basic classroom survival technique long since learned their student population well enough not to focus on every occurrence as martinets. Group unison playing was almost always well managed and effectively engaged in. No observations of student socialization or group actions carrying over outside the formal instruction was possible for this program. Formal classroom observational analysis instruments, based upon techniques of Bellack, Flanders and their followers was not attempted. Unfortunately, no departmental or school-wide auditorium performance program was planned as an outcome goal of the project requiring positive socialization beyond the standard classroom.

4. The ETHOS program does not appear at this time sufficiently developed to represent "....a Model program for disaffected pupils that will have potential applicability - generalizability to similar situations...." This sobering conclusion from the goal of objective #7 is necessitated by:

- the lack of statistically significant differences in absence reduction.
- the lack of statistically significance difference in groups in positivity of attitude.
- the failure of transfer of learning to academic areas.
- the incomplete implementation of programmed learning and individualized instruction.
- absence of a preplanned structured curriculum during most of the program.
- the lack of administrative control over student programming and placement in the three classes.
- the limited commitment of the school's central administration to an only one semester funded program input, and absence of publicity about the program.

If we reflect back on the original overall problem stated for the ETHOS program from the 8 primary and secondary conclusions just dealt with: Can generalized improvement transfer over to other areas from an acquired level of musical skill where motivation, reinforcement and success are built in?

We are forced to conclude that the major goal of generalized improvement and transfer of learning has fallen short of accomplishment. On the more positive side, we have seen a sustaining of motivation and a relatively

successful development of early musical knowledge and performance skills where none had existed among a disaffected student group in an urban high school setting, for those 50% of participants who chose to remain to the end of the program.

* * *

B Recommendations for Future Programs

Recommendations Relating to the musical skills that can be acquired.

1. The program should operate for an entire school year of two semesters. This could foster a higher skills level and allow sufficient time to experiment with the use of additional individualized instructional materials.

2. Individualized instructional materials not in regular use could be experimented with on a intensive basis as part of the ETHOS curriculum--cassette tapes, programed instructional materials and supplementary musical books.

3. Instrumentation could be expanded to include inexpensive recorder flutes as called for in the original program proposal to the State Education Department. This would constitute greater diversity of instrumentation to motivate and stimulate a wider variety of musical ability allowing for greater range of musical expression.

4. Expansion of musical instruction in a full year's course with several different musical instruments with varied and individualized instructional materials will allow the In-House Achievement Test, question groups VI, VII and VIII - Items 20 - 26, covering student creative component areas: creation of melodies, their transposition, chord transposition and time transformations (see Appendix C) to be included in the testing measurement. The single semester pilot program did not provide time for this aspect of musical skill creativity.

Recommendations Relating to Other Aspects of the School Program

1. Greater Autonomy of the Music Department in selection and placement of students in the Special ETHOS class vs. the less rigorously selected

students for the regular ETHOS classes, could permit a differential absence study to show more significant difference, if a difference is due to this type of program. Maintaining school administration's Program Committee with veto power over student criteria for selection and placement, puts too great a restriction over quality control in student placement and in filling classes with required student number for which the program is budgeted.

2. Standardized achievement tests should be conducted on a pre- and post-program basis for enrollees as regular part of the testing to assess transfer of effects from the program to reading and mathematics skills. Use of the Metro' '70 test battery or the High School Battery for Reading and Mathematics of the Metropolitan Achievement Tests would assure data for every participant in a one-year program. Depending upon school records with their problems of transfers, of in-migrant students, of absence from testing, and of use of other test instruments is highly unrealistic and is contraindicated in any future research design.

Recommendations Relating to Attitudinal Survey of Participants

1. Item analysis of the attitudinal survey instrument to revise or eliminate items that fail as discrimators should be completed. Other items from validated attitudinal questionnaires should be sought and used in a revised instrument. With a one-year course input, the sensitivity of measure should be greater, and significant differences in attitude would be expected to result.

2. Institution of changes in the ETHOS syllabus to include an outcome musical production that goes beyond the classroom as a goal, such as an auditorium presentation could have more impact upon student socialization

factors that might prove more motivating for the program and result in a higher level of attitudinal changes.

Recommendations with Regard to Curriculum

1. The project should operate with a completely drafted, agreed upon, duplicated syllabus, a copy of which resides in the hands of each participating instructor. This can help avoid extra burden in lesson planning and undue gaps in content coverage resulting when each teacher is forced to go it alone. The syllabus should be broken into intermediate goals, keyed to behaviorally stated sub-objectives for every unit.

2. Instruction could be organized more nearly like that in a learning laboratory, using school projects such as use of electronic piano laboratory as model.

3. Finally, the revised syllabus should incorporate outcome performance(s) presented to the school in auditorium assemblage as highly motivating goals to the instruction, only suggestively present in the current syllabus (see Appendix E Week #17).

Recommendations with Respect to Personnel and Budget

1. The teaching group should be required to meet regularly as a team to coordinate progress, analyze problems, and move innovatively toward their solution. The project coordinator should be present at these project meetings.

2. A clerk-typist, part or full-time should be budgeted for to handle typing of forms and evaluation instruments, scoring of the instruments, keeping of class lists, comparative class attendance data, and student record cards. The project coordinator handled many of these tasks as well as

the many budget forms, to the detriment of his other functions as Music Department Chairman.

3. Budget should allow for a 10% overedge on orders of every item for loss and breadown and a fund for repairs. Operating a project as was done on a zero margin is especially unwise.

In summary, it is recommended that before replicating this pilot project, most of the above recommendations should be instituted as necessary reforms, since the project tended to operate without effective functioning of the above recommendations, many of which can be regarded as critical to full implementation of the intent of the program to produce significant growth in academic skills, absence reduction and positivity of attitude toward education and the school. Due to the fact that the program has been terminated, the evaluation does not recommend its recycling at this time.

* * *

A P P E N D I X A

OUTLINE OF THE ETHOS SYLLABUS

A Tentative Course of Study for Ethos Project - Spring, 1971*

Week #1
Orientation: Scope and purpose of course/assignment of instruments and places; administration of Achievement Test (Pre), Attitudinal Survey, Aptitude Test.

Week #2
Exploration of Sound: Concept of high and low (pitch discrimination, soft and loud, (dynamics) short and long (duration), fast-slow-medium (tempo).

Week #3
Continue work as above and - Introduce the "eight note span" (defined as octave). - Number identification of fingers for playing eight note sequence-left and right hand. Start of development of digital dexterity.

Week #4
Continue work of Week #3 and
Creation of original melodies by students; to be performed by students where possible; development of aural acuity.

Week #5
Familiar Melodies: Students to be taught to play familiar melodies-by rote-employing concept begun in week #3.

Week #6
Expansion of playing range: Develop ability to recognize tones and to play beyond the original eight note span (octave).

Week #7
Introduction of Text (Thompson, Adult Preparatory Method for Piano)
Introduce whole, half, quarter, and eight notes. Relate to earlier concept of "short and long". See Week #2. Explain relative value of (note value) symbols.
Text Page five (5) under notes and time signatures.

Week #8
Introduction of Staff: Show staff and its function; lines and spaces - names for each in treble clef (first). Relate symbols to concept of high and low sounds (pitch). See Week #2
Text page five (5) under Elements of Notation.

Week #9
Follow Week #8 for introduction of lines and spaces in bass clef.

Week #10 and #11

The "Great Staff" - Provide experiences, drill, examples from text, in combining use of left and right hand; reading symbols in both clefs.
Make rote songs --- "meaningful" - to be played by students from printed (musical) symbols.

Week #12

Evaluation: Observation by chairman; conference with teacher re: progress of project, in general, and of individual students, specifically.
Introduce accidentals-concept and function of sharps and flats. Introduce (slightly) more complicated melodies to be performed by students.

Week #13

Review: Review-rote scales, finger patterns (numbers) scales by letter names, note values, symbols already learned. Introduce tempo markings (see fast-slow concept Week #2); use of Italian terms for tempo. Introduce terms from Glossary-text page 80.

Week #14

Interpretation: Introduction of phrasing, tempo markings, dynamics, etc. for a (more) musical performance. See pages 21 and 28 in text. Introduce the concept of Form; explain simple designs of composition. See page 32 in text.

Week #15

Technical Drill: Further develop coordination and speed (digital Dexterity). Design exercises according to individual needs of students. Teacher to create needed exercises. Write one example, for use by all, on blackboard.

Week #16

Repertoire: With students select suitable (brief, simple) composition for individual performance. Students to be aided in individual practice by the teacher. Suggest aids to memorization. Guidelines to evaluation of student performance: proper playing position, tempo, phrasing, dynamics, correct pitch and note values.
May select from text page 7 (#1, 2, 3) page 9 (#4, 5, 6) page 13 (#13) page 22 (Swans on the Lake) page 29 (Passing in Two's) page 32 (Dutch Dance).

Week #17

"Performance Time": Students will perform, individually, for a "jury" of their peers, the teacher, chairman of music, etal. Provides experience in "public" performance-and an opportunity for evaluation by the teacher. Encourage self-evaluation of performance; teacher to offer additional construtive suggestions.
See guidelines for evaluation - Week #16

Week #18

Evaluation: Administer and score Achievement Test (post) and Attitudinal Survey; review work covered to date; consider grades on basis of Achievement Test Scores (Post); gather all data for statistical processing; discuss, with students, value of and reactions to the experiment - and elicit opinions regarding its future continuance with, or without, changes.

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* Prepared by Dr. Lionel Kaplan, Chairman and Mr. Lucian MacDonald, Project Teacher Music Department, George W. Wingate High School, Brooklyn, New York Dr. Robert L. Schain, Principal.

A P P E N D I X B

PAN AMERICAN MUSIC APTITUDE TEST, AS MODIFIED

Modification by Project Director, Music Department

Name_____ Music Class_____

I Rhythm

_____1

_____2

_____3

_____4

_____5

II Pitch

_____1

_____2

_____3

_____4

_____5

III Melody

_____1

_____2

_____3

_____4

_____5

IV Chords

_____1

_____2

_____3

_____4

_____5

N.B. Answer by using only plus (+) or minus (-)

Score Value at 5 points per item. Maximum Score Possible = 100

Discriminating Stimulus for each item presented by means of Recording.

A P P E N D I X C

IN-HOUSE ETHOS ACHIEVEMENT TEST*

Score

_____(Name) _____(Music Class)

_____(Official Class) _____(Music Teacher)

I Play a note: play a higher note _____1
lower " _____2
higher " _____3

II Play: Two short notes, 2 long notes _____4
one short note, 3 long _____5
four " , 2 " _____6

III Play a four note pattern
(on same pitch) _____7
-one faster pattern _____8
-" slower " _____9
-" faster " _____10

IV Play 2nd count:
note-silence-note-note _____11
note-note-silence-note _____12
note-note-note-silence _____13

V Find: C_____14 B_____18
C#_____15 Bb_____19
F_____16
F#_____17

VI Create a four (4) bar melody _____20
Change a melody to minor mode _____21
Harmonize melody in major
using I - IV - V _____22

VII Play major chord; make it minor _____23
" minor " ; make it major _____24

VIII " four bars in $\frac{4}{4}$ time _____25
" " " in $\frac{3}{4}$ time _____26

IX Thompson Book (Adult) page 7

Read (and play) 4 bars only

line I 𝄞 RH _____27

line II 𝄢 LH _____28

line III 𝄡 RH/LH _____29

X Clap-recite p.11 last line _____30

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*

Prepared by: Dr. Lionel Kaplan, Chairman, Music Department
George W. Wingate High School, Dr. Robert L. Schain, Principal

Score Values:

Items		
	1-3	1 point
	4-6	3 points
	7	4 points
	8-19	2 points
	20-22	6 points
	23-24	3 points
	25-30	6 points

Total Score = 100 points

Board of Education of the City of New York
BUREAU OF EDUCATIONAL RESEARCH

A P P E N D I X D

Name _____

Class _____

Date _____

STUDENTS' SURVEY -- ETHOS PROJECT
ON EDUCATION & THE SCHOOL

PART I Decide how much you agree or disagree by putting a check in one box for each sentence about education and schooling.

5 Strongly Agree	4 Agree	3 Un-decided	2 Disagree	1 Strongly Disagree	I T E M S
					*1. A person can learn more by working three years than by going to high school.
					*2. I think a person is foolish to keep going to school, if he can get a job.
					3. The more schooling I have, the better I will be able to enjoy life.
					4. Education helps me to use my leisure time to better advantage.
					5. I can advance more rapidly in business and industry, if I have a high school diploma.
					*6. I believe only subjects like reading, writing and arithmetic should be taught at public expense.
					*7. I think there are too many fads and frills in modern education.
					8. I believe our schools encourage a person to think for himself.
					9. To me, a high school education makes a man a better citizen.
					10. Solution of the world's problems will come through education, I say.
					*11. I go to school only because I am compelled to do so.
					*12. I think time spent studying is wasted.

* Starred items (*) have negative meaning. If you agree with them, your attitude is against education and schooling. If you check disagree, you are in favor of education and schooling.

TURN PAGE TO CONTINUE ---

5 Strongly Agree	4 Agree	3 Un-decided	2 Disagree	1 Strongly Disagree	I T E M S (Continued)
					13. I see education as an excellent character builder.
					*14. I think too much money is spent on education.
					15. In my opinion, education does far more good than harm.
					16. My education will be of use to me after I leave school.
					*17. Classrooms are dull places, I think.
					18. I enjoy going to class.
					*19. Rules make school seem like prison to me.
					20. I think we should help make others obey the rules.
					*21. Some teachers seem unreasonable to me.
					*22. I say that we students should run our own classes without teachers.
					*23. I like school closed.
					*24. Studying interferes with some of my other plans and activities.
					25. I think I should give up going places for studying.
					26. I think a high school diploma will help me to get a job.
					27. I like to do school work at school.
					28. I would rather go to high school than to stay at home.
					29. I believe that all the better class of people have high school educations.
					*30. The high school teaches me mostly old and useless information.

E N D P A R T I

GO ON TO PARTS II & III
ON NEXT PAGE ---

PART II Feelings you have about yourself, your education, and your hopes for work. Check one box for your feeling about each item.

5 Strong or Good Feeling	4 Fair Feeling	3 No Feeling, or Not Sure	2 Poor Feeling	1 Bad or Very Poor Feeling	I T E M S
					31. Learning something new
					32. The kind of person I am
					33. How well I read
					34. How well I do mathematics
					35. The school I attend
					36. The quality of education I get
					37. The job I will have some day
					38. My teachers
					39. Going to school in the morning
					40. Continuing my education or training after I finish high school.

PART III Show how interested you may be by checking one box for each area of interest below.

5 Very much Interest	4 Some Interest	3 Little Interest	2 No Interest	1 Great Dislike	I T E M S
					41. Listening to music
					42. Playing a musical instrument
					43. S i n g i n g
					44. Drawing or painting
					45. Learning what others like me have done in the past.
					46. Watching TV
					47. Going to dances
					48. Going to concerts
					49. Going to plays
					50. Visiting museums and other famous places.

Look back to see if you have decided and placed a check for each of the 50 items.

Thank you for your cooperation!

APPENDIX E

FACULTY END-TERM QUESTIONNAIRE

ETHOS Teacher's Program Evaluation Form

Teacher _____

Kindly indicate your professional evaluation of each of the program components listed in a brief statement each.
When completed, this form will complete your report obligation requested of you for this project.

Your evaluation of:

1. Student progress in musical skill (be specific):

2. Methods and Materials used instructing your students:
   (Indicate any work done on a syllabus for the Program)

3. State Motivations you used that received
   successful/unsuccessful Reception:

4. Overall Student Attendance and Changes Noted at
   beginning, middle, and end of project:

5. Student Cooperation with ETHOS Program:

6. Overall Student Attitudes, noting changes
   between beginning and end of Project:

7. List Special Problems Noted
   for this Program:

   List Favorable Possibilities Noted
   for this Program

8. Affects of this Program with student work in other subject areas:

9. Indicate degree and particulars of Coordination with other member of ETHOS Team:

10. SUMMARY STATEMENT--Your General Opinion of ETHOS Project: (Include Whether You Think the Program Should be Continued, and if so, on What Basis)

PLEASE USE REVERSE SIDE
FOR ANY FURTHER COMMENTS